

No. 5,693,685 to Kishimoto et al. (hereinafter "Kishimoto") in view of Amer. These rejections are respectfully traversed.

The Office Action admits that Nagai and Kishimoto do not disclose or suggest a method for measurement of thermal conductivity of a honeycomb structure, but asserts that Amer discloses a method for measuring thermal conductivity. The Office Action further asserts that the combination of Nagai or Kishimoto with Amer would have rendered obvious the subject matter recited in claim 11.

However, one of ordinary skill in the art would not have been motivated to combine Nagai or Kishimoto with Amer.

In particular, Nagai discloses an embodiment in which the thermal conductivity was measured according to an ordinary method, using a thermal conductivity meter. See col. 29, lines 5-7. Nagai discloses measuring thermal conductivity using an ordinary method. Nagai does not disclose or suggest using a specific kind of method. Thus, Nagai merely discloses using a method. Nagai does not disclose or suggest the method of a particular kind, such as the kind disclosed in Amer.

Kishimoto discloses measuring thermal conductivity of a thermal insulator. See col. 13, lines 9-17. Similar to Nagai, Kishimoto does not disclose or suggest requiring a specific kind of method or apparatus to measure the thermal conductivity. Therefore, Kishimoto merely discloses using a method. Kishimoto does not disclose or suggest the method of a specific type, such as the method disclosed in Amer.

On the other hand, Amer discloses a method for measuring the thermal conductivity of species 16. See Fig. 1 and col. 3, lines 49-64. However, Amer requires that the species 16 be a thin film having a thickness between 50  $\mu\text{m}$  and 150  $\mu\text{m}$ . See col. 1, lines 21-27. Thus, Amer teaches away from measuring the thermal conductivity of a honeycomb structure.

In particular, as discussed during the personal interview, it is well known to one of ordinary skill in the honeycomb art that a honeycomb structure is not as small as 50-150  $\mu\text{m}$ . For example, Nagai discloses a honeycomb structure having a diameter of about 144 mm and a length of about 155 mm. See col. 4, lines 49-51. Such a disclosure supports Applicants' assertion that honeycomb structures are not as small as 50-150  $\mu\text{m}$ . Apparently, one of ordinary skill in art would not have been motivated to use Amer in the art of honeycombs, such as those disclosed in Nagai.

During the personal interview, the Examiner suggested that Applicants file a Declaration or Affidavit to support the assertion that honeycomb structures are not as small as 50-150  $\mu\text{m}$ . Such a Declaration or Affidavit appears unnecessary at this point, because Nagai clearly indicates that honeycomb structures have dimensions on the order of 100 mm. However, if the Examiner believes that such a Declaration or Affidavit must be filed, the Examiner is requested to provide the reasons for such a request on the record, and Applicants will consider filing such a Declaration or Affidavit.

For at least the above reason, the method disclosed in Amer is not for use in measurement of the thermal conductivity of a honeycomb structure. One of ordinary skill in the art would not have been motivated to combine the method disclosed in Amer for measurement of the honeycomb structure of Nagai, or the insulator of Kishimoto.

Furthermore, Nagai, Kishimoto, Amer and Kirino, even if combined, do not disclose or suggest expression 1 recited in claim 13.

In particular, because Amer's method was for measurement of thermal conductivity of a thin film, as discussed above, Amer discloses a one-dimensional heat transfer mode, and uses Fourier law of heat conduction to measure thermal conductivity. See Fig. 4, col. 4, lines 39-55. Such a calculation does not disclose or suggest expression 1 recited in claim 13.

Nagai, Kishimoto and Kirino do not disclose or suggest expression 1, as recited in claim 13. Thus, they do not supply the subject matter lacking in Amer. Hence, Nagai, Kishimoto, Amer and Kirino, even if combined, do not disclose or suggest the subject matter recited in claim 13.

In view of the above, withdrawal of the rejection of claims 11-17 and 22-25 under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 11-25 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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